

Patent Application
Attorney Docket No. D/99720C

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Brian E. Springett et al.

Application No.: to be assigned

Filed: concurrently herewith

Examiner: to be assigned

Art Unit: to be assigned

**Title: TRANSFER SHEET PRINTING PROCESS
FOR DECORATING ARTICLES FORMED BY
USING A DIGITALLY CONTROLLED COLOR
PRINTING MACHINE**

Commissioner for Patents
Washington, D.C. 20231

Sir:

CERTIFICATE OF MAILING

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or Registered Representative)

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(Signature)

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PRELIMINARY AMENDMENT UNDER RULE 115

This is a preliminary amendment under 37 CFR §1.115 for the accompanying continuation application filed pursuant to 35 USC §120, 37 CFR §1.53(b) and §1.78(a).

The parent application (Serial No. 09/454,834) is pending; and its remaining claims (claims 11-40) are expected to soon issue as a separate U.S. Patent. Original claims 1-10 (of Serial No. 09/454,834) are the subject of this continuation application.

Please amend the present continuation application as follows.

IN THE SPECIFICATION:

In the specification of the above-identified continuation patent application, immediately before the first sentence following the title, please add all of the following.

"This is a continuation application under 37 CFR §1.53(b) and §1.78(a) of U.S. Application Ser. No. 09/454,834 filed December 6, 1999, the benefit of which is now claimed for purposes of priority pursuant to 35 USC §120."

IN THE CLAIMS:

In this continuation application, please cancel each of claims 3, 7 and 11-40 without prejudice; and please amend each of claims 1, 2, 4 and 8-10 as follows.

1. A transfer sheet, including:
 - a carrier sheet;
 - a colored pattern printed on a surface of said carrier sheet using at least one digitally controlled color printer; and
 - a layer of white colored material printed over at least the colored pattern using the digitally controlled color printer.

2. (Amended) A transfer sheet, including:
a carrier sheet;
a colored pattern printed on a surface of said carrier sheet using at least one digitally controlled color printer; and
a layer of white colored material printed over at least the colored pattern using the digitally controlled color printer, further including a layer of glue positioned over at least said layer of white colored material, wherein said layer of glue includes a heat activatable thermoplastic polymeric glue.

Please Cancel Claim 3

4. (Amended) A transfer sheet, including:
a carrier sheet;
a colored pattern printed on a surface of said carrier sheet using at least one digitally controlled color printer; and
a layer of white colored material printed over at least the colored pattern using the digitally controlled color printer, wherein said colored pattern includes:
a first layer of colored material; and
a second layer of colored material, with said first layer of colored material being of a different color than said second layer of colored material.

Please Cancel Claim 7.

8. (Amended) A transfer sheet according to **claim 2**, wherein said layer of glue is printed over said layer of white colored material by using the digitally controlled color printer.

9. (Amended) A transfer sheet, including:
 - a carrier sheet;
 - a colored pattern printed on a surface of said carrier sheet using at least one digitally controlled color printer; and
 - a layer of white colored material printed over at least the colored pattern using the digitally controlled color printer, wherein said layer of white colored material includes a toner material.

10. (Amended) A transfer sheet, including:
 - a carrier sheet;
 - a colored pattern printed on a surface of said carrier sheet using at least one digitally controlled color printer; and
 - a layer of white colored material printed over at least the colored pattern using the digitally controlled color printer, further including a transparent layer printed on the surface of said carrier sheet with said colored pattern being printed thereover.

Please **cancel** claims 11-40 without prejudice.

Remarks

The claims presently before the Patent Office are claims 1, 2, 4-6 and 8-10.

Present claims 2, 4, 9 and 10 have each been amended to distinguish the claimed invention from prior art cited and discussed by the examiner in Paper No. 7 of the priority document (Serial No. 09/454,834), which is a pending application that is soon expected to issue.

In particular, present claim 2 has been amended to incorporate subject matter of original claims 1, 2 and 7; present claim 4 has been amended to incorporate subject matter of original claims 1 and 4; present claim 9 has been amended to incorporate subject matter of original claims 1 and 9; and present claim 10 has been amended to incorporate subject matter of original claims 1 and 10. No new matter has been added.

Claims 3 and 7 were each canceled without prejudice. Present claim 8 has been amended to change claim dependency from claim 7 (now canceled) to present claim 2.

For continuity purposes pursuant to 35 USC §112 and 37 CFR §1.51(b), claim 1 links the priority document (Ser. No. 09/454,834 filed 12/6/99) to the present application.

WO 97/21867 to Franke

In Paper No. 7 of the parent application (Ser. No. 09/454,834), the PTO rejected original claims 1-10 under 35 USC §102(b) over WO 97/21867 to Franke for reasons stated on page 2. In particular, the PTO wrote:

"Franke discloses a transfer sheet including a carrier sheet; a one- or multi-colored pattern printed on the carrier sheet using a digitally controlled color printer; a transparent or white-pigmented layer printed configuratively by silk screen printing on the pattern; a layer of glue positioned over at least said white-pigmented layer or the transparent or white-pigmented layer includes an adhesive."

In connection with the above-quoted language, please refer to page 2 of Paper No. 7; and also please refer to page 3 of Paper No. 5 of the parent application (Ser. No. 09/454,834).

The Present Claims

The present claims are distinguishable over WO 97/21867 to Franke. Present claim 2 has been amended to recite, inter alia, that the layer of glue (positioned over the layer of white colored material) includes a heat activatable thermoplastic polymeric glue. Support may, e.g., be found in the application at page 5, line 27 through page 6, line 3; at page 14, lines 9-18; and at page 17, lines 24-25. Present claim 4, amended to incorporate original claim 1, recites, inter alia, that the colored pattern (in general) recites first and second layers of different colors. Support may, e.g., be found in the application at page 5, line 27 through page 6, line 3; at page 7, line 26 through page 8, line 5; and, e.g., at page 9, lines 7-9. Present claim 9, amended to incorporate original claim 1, recites, inter alia, that the layer of white colored material includes a toner material. Support may, e.g., be found in the application at page 5, line 27 through page 6, line 3; and at page 12, line 26 through page 13, line 6. Present claim 10, amended to incorporate original claim 1, recites, inter alia, a further included transparent layer printed on the surface of the carrier sheet with the colored pattern being printed thereover. Support may, e.g., be found in the

patent specification at page 5, line 27 through page 6, line 3; and at page 18, lines 22-27.

Closing Statements

In view of the above, it is believed that the above-discussed claims presently before the Patent Office are patentably distinguishable over WO 97/21867 to Franke.

Upon reviewing the above remarks, if the examiner is persuaded that this continuation application and its present claims 2, 4-6 and 8-10 are, in general, in condition for allowance, then the examiner may telephone the undersigned to propose canceling claim 1 via examiner's amendment or via documents prepared by the undersigned and which may be sent to the PTO via facsimile, if such would expedite allowance of the above-identified other claims.

Moreover, because all general requirements under not only 35 USC §112 but also 37 CFR §1.51(b) and §1.53(b) appear to have been satisfied, it is further believed that the present continuation application appears to be in condition for allowance.

Accordingly, an early action to that effect is respectfully solicited.

The applicant respectfully solicits the Examiner's consideration of the above identified amendments and remarks, and allowance of all the claims pending in the application. If the Examiner believes personal contact would be helpful for disposition of the case, the Examiner is hereby requested to contact applicants' representative Jerome D. Drabiak at (716) 422-4114, Rochester, New York.

Respectfully submitted,

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RFC/cas
November 2, 2001

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. A transfer sheet, including:
a carrier sheet;
a colored pattern printed on a surface of said carrier sheet using at least one digitally controlled color printer; and
a layer of white colored material printed over at least the colored pattern using the digitally controlled color printer.

2. (Amended) A transfer sheet ~~according to claim 1~~, including:
a carrier sheet;
a colored pattern printed on a surface of said carrier sheet using at least one digitally controlled color printer; and
a layer of white colored material printed over at least the colored pattern using the digitally controlled color printer, further including a layer of glue positioned over at least said layer of white colored material, wherein said layer of glue includes a heat activatable thermoplastic polymeric glue.

Please Cancel Claim 3

3. ~~A transfer sheet according to claim 1, wherein said white colored material includes an adhesive.~~

4. (Amended) A transfer sheet ~~according to claim 1, including:~~
~~a carrier sheet;~~

~~a colored pattern printed on a surface of said carrier sheet using at least one digitally controlled color printer; and~~

~~a layer of white colored material printed over at least the colored pattern using the digitally controlled color printer, wherein said colored pattern includes:~~

~~a first layer of colored material; and~~

~~a second layer of colored material, with said first layer of colored material being of a different color than said second layer of colored material.~~

5. A transfer sheet **according to claim 4**, wherein said first layer and said second layer are printed on said carrier sheet at least partially in superimposed registration with one another.

6. A transfer sheet **according to claim 5**, wherein said layer of white colored material is printed over said first layer and said second layer.

Please Cancel Claim 7

7. A transfer sheet ~~according to claim 2, wherein said layer of glue includes a heat activatable thermoplastic polymeric glue.~~

8. (Amended) A transfer sheet ~~according to claim 7_2, wherein said layer of glue is printed over said layer of white colored material by using the digitally controlled color printer.~~

9. (Amended) A transfer sheet ~~according to claim 1, including:~~
a carrier sheet;
a colored pattern printed on a surface of said carrier sheet using at
least one digitally controlled color printer; and
a layer of white colored material printed over at least the colored
pattern using the digitally controlled color printer, wherein said layer of white
colored material includes a toner material.

10. (Amended) A transfer sheet ~~according to claim 1, including:~~
a carrier sheet;
a colored pattern printed on a surface of said carrier sheet using at
least one digitally controlled color printer; and
a layer of white colored material printed over at least the colored
pattern using the digitally controlled color printer, further including a transparent
layer printed on the surface of said carrier sheet with said colored pattern being
printed thereover.

Cancel claims 11-40 without prejudice.

11. An apparatus for transferring a colored pattern from a carrier sheet to a final support material, including at least one digitally controlled color printer for printing the colored pattern on a surface of the carrier sheet, said printer printing a white colored material over at least the colored pattern.

12. An apparatus ~~according to claim 11 further including a glue applicator, associated with said printer, for depositing a layer of glue over at least the layer of white colored material.~~

13. An apparatus **according to claim 11**, wherein said white colored material includes an adhesive.
14. An apparatus **according to claim 11**, wherein said printer prints a first layer of colored material on the surface of the carrier sheet and a second layer of colored material with the first layer of colored material being of a different color than the second layer of colored material.
15. An apparatus **according to claim 14**, wherein said printer prints the first layer and the second layer at least partially in superimposed registration with one another on the carrier sheet.
16. An apparatus **according to claim 15**, wherein said printer prints the layer of white colored material at least over the first layer and the second layer.
17. An apparatus **according to claim 12**, wherein said glue applicator includes a digitally controlled printing station, associated with said printing machine, for depositing the layer of glue over the layer of white colored material.
18. An apparatus **according to claim 11**, wherein said printer includes an electrophotographic printing machine.
19. An apparatus **according to claim 11**, wherein said printer includes an ink jet printing machine.

20. An apparatus **according to claim 12**, wherein glue being deposited by said glue applicator includes a heat activatable thermoplastic polymeric glue.

21. An apparatus **according to claim 12**, further including:
a device, associated with said printer, for advancing the final support material into registration with the layer of glue on the carrier sheet; and
a transfer device, positioned to receive the carrier sheet having the final support material in registration therewith, for applying energy to at least said carrier sheet to transfer and adhere the white colored material having the colored pattern thereon to the final support material.

22. An apparatus **according to claim 21**, wherein the energy being applied by said transfer device includes heat.

23. An apparatus **according to claim 21**, wherein the energy being applied by said transfer device includes pressure.

24. An apparatus **according to claim 21**, wherein the final support material includes a fabric.

25. An apparatus **according to claim 11**, wherein said digitally controlled color printer prints a transparent layer on the surface of the carrier sheet with the colored pattern being printed thereover.

26. A method of transferring a colored pattern from a carrier sheet to a final support material, including:

using at least one digitally controlled printer to print the colored pattern on a surface of the carrier sheet; and

printing a white colored material over at least the colored pattern with the digitally controlled printer.

27. A method according to claim 26, further including applying a layer of glue over the layer of white colored material to form an outer layer.

28. A method according to claim 26, wherein the white colored material includes an adhesive.

29. A method according to claim 26, said step of using includes:

printing a first layer of colored material on the surface of the carrier sheet; and

printing a second layer of colored material with said first layer of colored material being of a different color than said second layer of colored material.

30. A method according to claim 29, wherein said step of using includes printing the first layer and the second layer at least partially in superimposed registration with one another.

31. A method according to claim 30, wherein said step of printing includes printing the white colored material at least partially in superimposed registration with the first layer and the second layer.

32. A method **according to claim 27**, wherein said step of applying includes using the digitally controlled printer to print the layer of glue over the layer of white colored material.

33. A method **according to claim 27**, wherein said step of applying includes applying a heat activatable thermoplastic polymeric glue.

34. A method **according to claim 26**, wherein said step of using includes using an electrophotographic printing machine.

35. A method **according to claim 34**, step of using an electrophotographic printing machine includes printing the colored pattern with a colored toner material.

36. A method **according to claim 26**, wherein said step of printing includes printing the white colored material with a white toner material.

37. A method **according to claim 26**, wherein said step of using includes using an ink jet printing machine.

38. A method **according to claim 27**, further including:
~~advancing the final support material into registration with the layer of
glue on the carrier sheet; and~~
~~applying energy to at least the carrier sheet to transfer and adhere
the white colored material having the colored pattern to the final support material.~~

39. A method **according to claim 38**, wherein said energy applying step includes applying heat.

40. A method **according to claim 38**, wherein said energy applying step includes applying pressure.